

An apparatus and a method for removing an organic material from a semiconductor device are provided. The apparatus has a reactor for enclosing at least one semiconductor device with deposited organic material and for enclosing a fluid having ingredients for removing the organic material. An optical sensor system is placed in such a manner that an emitted optical radiation is transmitted through the fluid. The optical sensor system is connected to a control device, which controls the insertion of at least one of the ingredients according to the detected intensity of the optical radiation transmitted through the fluid. The invention allows for optimization of the amount of at least one of the ingredients used in the process.